

Activity ES&H Hazard Identification Checklist

Name of Activity: _____

Activity Supervisor: (Print) _____

Location: Room _____ Building _____

ES&H Rep.'s/Coor.'s Signature _____

Employee # _____

Date _____

Group Leader's Signature
(Approved by) _____

Employee # _____

Date _____

IMPORTANT! Attach a hazard management statement for each item checked below.

Check all of the following that are applicable to/or involved with the activity. This checklist will be utilized by ESH&A in review of the activity.

A. Chemical and Biological Concerns

- ☐ Mercury or mercury compounds (e.g. dimethyl mercury).
- ☐ Research involving human subjects or animal studies.
- ☐ Chemicals requiring personnel medical monitoring (see "Federally Regulated Hazards": (www.external.ameslab.gov/esh/ESH&A_Documents/FormHazardInventory.pdf)).
- ☐ Hazardous or toxic chemicals (www.external.ameslab.gov/esh/ESH&A_Documents/CHPAAppendixA&BACuteHazWastes.pdf).
- ☐ Extremely hazardous substances (<http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&sid=5fc8e8e3aaf2d0c06a2e4422bd279c23&rgn=div5&view=text&node=40%3A27.0.1.1.11&idno=40#40.27.0.1.1.11.0.9.6.14>).
- ☐ Flammable chemicals (flashpoint < 100°F) in quantities greater than 4 liters (1 gallon) in one room.
- ☐ Perchloric or picric acid, peroxide-formers (www.external.ameslab.gov/esh/ESH&A_Documents/CHPAAppendicesK&L&MPeroxideFormers2.pdf).
- ☐ Pyrophoric or explosive materials (www.external.ameslab.gov/esh/ESH&A_Documents/CHPAAppendicesH&IIncompatiblesShockers.pdf).
- ☐ Activities that generate potentially hazardous ambient air concentrations of nanoscale and other particulates, mists, fumes, vapors, or asphyxiates.
- ☐ Generation of chemical, mixed, or radioactive waste (as defined by the Ames Laboratory Waste Management Program Manual).
- ☐ Generation of new waste streams, or a > 20% increase in an existing waste stream.
- ☐ Biological materials (including human, plant or animal pathogens) (www.external.ameslab.gov/esh/ESH&A_Documents/SUBiohazardousAgentsList.pdf).
- ☐ Suspected and/or confirmed carcinogens (www.external.ameslab.gov/esh/ESH&A_Documents/CHPAAppendicesD&ECarcinogens.pdf).
- ☐ Activities that involve the use of engineered nanoscale materials (< 100 nanometers).

B. Radiation Concerns

- ☐ Radioactive materials, radiation sources.
- ☐ Lasers (excludes laser printers and pointers).
- ☐ Radio frequency (RF) or microwave generators (excluding personal microwave ovens) of greater than 10 watts average output power.
- ☐ Ultraviolet radiation, which could expose personnel (e.g. arc welding, inductively coupled plasma, UV reactors, xenon lamps, etc.).
- ☐ Generation of Radioactively contaminated waste as defined by the Ames Laboratory Waste Management Program Manual.
- ☐ X-ray generating devices.

C. Electrical Concerns

- ☐ Work with exposed electrical wiring or parts with voltages greater than 50 volts.
- ☐ Work with stored energy systems (e.g. capacitor banks > 10 joules; station battery systems > 50 volts).
- ☐ Voltage systems of greater than 600 volts.
- ☐ Current systems of greater than 25 amps.
- ☐ Electrical devices not certified by a Nationally Recognized Testing Laboratory (e.g. Underwriters Laboratory, CSA, etc.).

D. Environmental Concerns

- ☐ Potential to release hazardous or radioactive materials to the sanitary or storm sewers, soil or air.
- ☐ Potential for release of chemical, physical, radiological agents (nanoscale and other particulates, fumes, mists, or vapors) via hood or exhaust system.
- ☐ Transportation of hazardous or radioactive materials, including laboratory-to-laboratory and on-site or off-site.
- ☐ Activities requiring an emission permit.

E. Physical and Mechanical Concerns

- ☐ Fabrication of major (large mass or volume) equipment, structural supports.
- ☐ Work that is done in the proximity of floor openings or on elevated work platforms or scaffolds.
- ☐ Activities that require use of safety eyewear, respirators and/or other forms of personal protective equipment (PPE).
- ☐ Use of a glove box.
- ☐ Torch work, exposed source hot-work, or exposed heat sources (e.g. welding, soldering, arc welding, furnaces, etc.).
- ☐ Rotating parts or pinch points.
- ☐ Fluids or gases and pressure delivery systems, other than installed building utilities (> +/- 5 psig).
- ☐ Pressure vessels, vacuum vessels, and glass systems (> +/- 5 psig).
- ☐ Use of hoists, cranes or rigging.
- ☐ Cryogenic systems (including thermal and/or oxygen deficiency hazards).
- ☐ Mechanical stored energy systems (e.g. flywheels, mechanical springs, etc.).
- ☐ Electromagnetic systems.

F. Workplace Concerns

- ☐ Confined space (as defined by Ames Laboratory ESH&A Program Manual, Section 5.18).
- ☐ Activities that limit means of egress.
- ☐ Temperature or humidity extremes.
- ☐ Work which produces acute noise that interferes with normal conversation.
- ☐ Activities that involve tasks of prolonged repetitive motion.
- ☐ Activities that involve lifting/moving of 20 pounds, lifting from awkward positions, or pushing/pulling of heavy objects.

G. Other Concerns

- ☐ Activities involving sub-contractors.
- ☐ Public tours of Ames Laboratory facilities or the use of equipment/materials for public displays.
- ☐ Area renovation.
- ☐ Activities that involve equipment valued at \$100,000 or more in one room or laboratory.
- ☐ Activities to be performed at an "off-site" location (ISU lab space, field location, or other off-campus facility). Only check this item if any other item is checked